

DIALOG(R)File 347:JAPIO

(c) 1999 JPO & JAPIO. All rts. reserv.

02479736 \*\*Image available\*\*

ACTIVE MATRIX PANEL

PUB. NO.: **63-096636** [JP 63096636 A]

PUBLISHED: April 27, 1988 (19880427)

INVENTOR(s): MATSUEDA YOJIRO

APPLICANT(s): SEIKO EPSON CORP [000236] (A Japanese Company or Corporation), JP (Japan)

APPL. NO.: 61-242393 [JP 86242393]

FILED: October 13, 1986 (19861013)

INTL CLASS: [4] G02F-001/133

JAPIO CLASS: 29.2 (PRECISION INSTRUMENTS -- Optical Equipment); 44.6 (COMMUNICATION -- Television)

JAPIO KEYWORD:R011 (LIQUID CRYSTALS); R097 (ELECTRONIC MATERIALS -- Metal Oxide Semiconductors, MOS)

JOURNAL: Section: P, Section No. 756, Vol. 12, No. 334, Pg. 120, September 08, 1988 (19880908)

#### ABSTRACT

PURPOSE: To provide the resolution in a vertical direction equiv. to the resolution of a CRT without generating flickers by connecting n-type and p-type TFTs respectively to picture element electrodes for driving a liquid crystal by an electric field with a counter electrode and operating the same alternately by respective drivers.

CONSTITUTION: Data lines 11-13 are driven and scanned by the X driver 1, the n-type thin film transistors TFTs 21-23 by the Y driver 2 and the p-type TFTs 24-26 by the Y driver 3, respectively. Scanning lines 14-16 are connected to the gate electrodes of the p-type TFTs and scanning lines 17-19 to the gate electrodes of the n-type TFTs. The n-type TFTs turn on when the scanning line 14 attains a high level and the p-type TFTs turn on when the scanning line 17 attains a low level, respectively. Video signals are subjected to AC inversion at every one frame. The positive polarity signal is written by the p-type TFTs and the negative polarity signal by the n-type via the driver 1. The voltage to be impressed to the liquid crystal is thereby made symmetrical in positive and negative and since there are no frequency components below 50Hz in spite of the AC inversion at every frame. The generation of the flickers is, therefore, obviated and the high-accuracy image screen is obtained with the small-sized device.

DIALOG(R)File 345:Inpadoc/Fam.& Legal Stat  
(c) 1999 European Patent Office. All rts. reserv.

8110236

Basic Patent (No,Kind,Date): JP 63096636 A2 880427 <No. of Patents: 001>

ACTIVE MATRIX PANEL (English)

Patent Assignee: SEIKO EPSON CORP

Author (Inventor): MATSUEDA YOJIRO

IPC: \*G02F-001/133;

JAPIO Reference No: 120334P000120

Language of Document: Japanese

Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date
-----------	------	------	-----------	------	------

JP 63096636	A2	880427	JP 86242393	A	861013 (BASIC)
-------------	----	--------	-------------	---	----------------

Priority Data (No,Kind,Date):

JP 86242393	A	861013
-------------	---	--------

No. Equivalent.